

# IDENTITY AND CAREER MATURITY IN KINESIOLOGY STUDENTS

Malia Sachiko Johnson

Thesis Prepared for the Degree of

MASTER OF SCIENCE

UNIVERSITY OF NORTH TEXAS

May 2018

APPROVED:

Scott Martin, Major Professor

Allen Jackson, Committee Member

Ryan Olson, Committee Member

John Nauright, Chair of the Department of  
Kinesiology, Health Promotion, and  
Recreation

Randy Bomer, Dean of the College of  
Education

Victor Prybutok, Dean of the Toulouse  
Graduate School

Johnson, Malia Sachiko. *Identity and Career Maturity in Kinesiology Students*. Master of Science (Kinesiology), May 2018, 22 pp., 3 tables, references, 35 titles.

The purpose of this study was to explore athletic identity, identity foreclosure, and career maturity in a sample of undergraduate college students currently enrolled in kinesiology and physical education classes at a university in the southern United States. Students were provided with an internet link that requested them to complete a demographic survey, the Athletic Identity Measurement Scale (AIMS), the foreclosure subscale of the Extended Objective Measure of Ego Identity Status, and the Attitude Scale (Form A-2) of the Career Maturity Inventory.

Examination of the Pearson moment correlations indicated that the higher the sport participation during high school, the greater the athletic identity and identity foreclosure, and lower the career maturity attitudes. ANOVAs were performed to examine differences between males ( $n = 123$ ) and females ( $n = 183$ ), kinesiology ( $n = 181$ ) and non-kinesiology majors ( $n = 125$ ), and white ( $n = 144$ ) and non-white students ( $n = 162$ ) on athletic identity, identity foreclosure, and career maturity. Results showed that males scored significantly higher on athletic identity and identity foreclosure, and significantly lower on career maturity than females. Kinesiology students had scores significantly higher on athletic identity and identity foreclosure, and lower on career maturity. Finally, individuals that identified their ethnicity as White had higher athletic identity, lower identity foreclosure, and significantly higher career maturity than individuals who identified as an ethnicity other than white. Although the relationships in this study are in line with what has been found in previous research, the relationships among this sample of undergraduate students were weak. Future research should replicate the study using a measurable level of sport skill level. Future research should also consider introducing an intervention with a

career development program, and track participants' athletic identity, identity foreclosure, and career mature before, during, and after implementation of the program.

Copyright 2018

by

Malia Sachiko Johnson

## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	iv
IDENTITY AND CAREER MATURITY IN KINESIOLOGY STUDENTS.....	1
Purpose.....	4
Method .....	4
Participants.....	4
Procedure .....	5
Measures .....	5
Data Analysis .....	7
Results.....	8
Previous Sport Experience .....	8
Athletic Identity, Identity Foreclosure, and Career Maturity .....	9
Gender, Major, and Ethnicity Analysis of Variance .....	11
Discussion .....	15
Limitations and Strengths .....	18
Future Directions .....	19
References.....	20

## LIST OF TABLES

	Page
Table 1. Bivariate Correlations between Athletic Identity, Identity Foreclosure, Career Maturity, Years on High School Varsity Team, and Sport Skill Level .....	11
Table 2. Means and Standard Deviations of Athletic Identity, Identity Foreclosure, and Career Maturity.....	13
Table 3. Significance of Athletic Identity, Identity Foreclosure, and Career Maturity .....	14

## IDENTITY AND CAREER MATURITY IN KINESIOLOGY STUDENTS

Many young individuals sacrifice time and energy honing their sport skills, with a dream of competing professionally (Harrison, Sailes, Rotich, & Bimper, 2011). However, according to the National Collegiate Athletic Association (NCAA) only 6% of high school athletes will go on to compete at the collegiate level (NCAA, 2017). Those athletes who do not continue competing in athletics at a collegiate or higher level (e.g., professional, Olympics) may choose a career or major, like kinesiology, that affords them the opportunity to work alongside athletes. This decision to continue their career in an athletic setting may be driven by their highly salient athletic identity and made without exploring other options.

NCAA student-athletes commonly have highly salient athletic identities (Murphy, Petitpas, & Brewer, 1996; Whipple, 2009), which may limit their exploration in academic opportunities, social engagements, and other career options (Kirk & Kirk, 1993; Whipple, 2009). This unwillingness to explore alternative roles is termed identity foreclosure (Erikson, 1968; Marcia, 1966), and has been shown to correspond to low levels of career maturity in the collegiate student-athlete population (Linnemeyer & Brown, 2010; Murphy et al., 1996), meaning these individuals do not yet have the appropriate occupation, self, and decision-making knowledge to make informed career decisions (Super, 1957; Super, 1975). While research examining these phenomena in student-athletes exists, there does not appear to be any available research investigating previous high school athletes enrolled in athletic related classes, such as kinesiology. Therefore, additional research is warranted.

A key part of personal development is establishing an identity (Erikson, 1963). Erikson (1959) and Marcia (1966) developed models that explain how individuals form their identity. Specifically, Erikson (1959) proposed a lifespan development model that suggests people go

through eight stages before fully forming their identity, with each stage specified by a crisis or conflict that they must overcome in order to move on to the next stage. Marcia (1966) advanced the lifespan development model by proposing that there are four identity types (statuses) that associate with different degrees of exploration. The four identity statuses are achievement, diffusion, moratorium, and foreclosure. Identity foreclosure has been most commonly associated with athletes, as high levels identity foreclosure has been repeatedly displayed in this particular population (Adams, 2011; Kennedy & Dimick, 1987; Sowa & Gressard, 1983)

Research on self and identity in athlete populations has mainly focused on athletic identity and identity foreclosure (Adams, 2011; Kirk & Kirk, 1993; Linnemeyer & Brown, 2010; Murphy et al., 1996; Whipple, 2009). Because individuals participating in sports often commit so much of their lives to athletics, and develop highly salient athletic identities as a result, their exploration of other options suffers, leading to a greater possibility of identity foreclosure (Brewer, Van Raalte, & Linder, 1993; Beamon, 2012). Consequently, student-athletes' career development can be impacted in a negative way. Because of this, athletes are not ready to make career decisions, which results in low levels of career maturity (Adams, 2011).

Athletic identity has been defined as the degree to which an individual identifies with the athlete role and consists of the cognitive, behavioral, social, and affective aspects of identifying with the athlete role (Brewer, Van Raalte, & Linder, 1993). Additionally, athletic identity has been shown to be inversely associated with career planning and maturity (Lavalley, Gordon, & Grove, 1995; Murphy et al., 1996) and positively associated with identity foreclosure (Good, Brewer, Petitpas, Van Raalte, & Mahar, 1993). Athletic identity is typically formed early in life, with some individuals internalizing their athletic identity by the time they reach high school (Webb, Nasco, Riley, & Headrick, 1998). However, it is unclear how long the salience of this



identity lasts. For individuals who have internalized the athletic identity by high school but are not afforded the opportunity to pursue athletics in college or higher level, they may continue to identify strongly with the athlete role. Consequently, future behaviors may be predicted by the salience of a particular identity (Whipple, 2009), which may indicate that for some, their athletic identity is driving their decision to commit to a particular career or field of study.

Identity foreclosure may be triggered due to demands and expectations of their environment, or may be something that they do voluntarily (Danish, Petitpas, & Hale, 1993). For student-athletes, the demands placed on them and their athletic environment may lead to a foreclosed identity. Additionally, they may forego exploration of other options, such as alternative careers, because they see outside exploration as a threat to their athletic dreams (e.g., performing at the professional or Olympic levels; Good et al., 1993; Kennedy & Dimick, 1987). This concept may also be true of former athletes majoring in an athletic-related discipline (e.g., kinesiology), as identity foreclosure has been found to impact career choice (Blustein, Devenis, & Kidney, 1989) and has been hypothesized to contribute to an individual's choice of field of study (Mason & Briggs, 2017). Furthermore, Blustein and Phillips (1990) found that in a sample of college undergraduate students, those who experienced identity foreclosure displayed a dependent style of decision-making and had a tendency to rely on others to make important decisions for them. Additionally, individuals who are said to have foreclosed on their identity are also described as being authoritarian, having low levels of moral and ego development, low levels of autonomy, and an external locus of control (Marcia et al., 1993).

While identity foreclosure has been found to be negatively related to career maturity (Adams, 2011; Blustein & Phillips, 1990), the relationship between athletes and career maturity is undetermined. Some studies indicate that athletes demonstrate lower levels of career maturity

than non-athletes (Davis-Hill, 2001; Kennedy & Dimick, 1987), whereas others report that there is not a difference between the two groups (Blann, 1985; Marten & Cox, 2000). Therefore, additional research on the topic is warranted.

### Purpose

Previous research indicates that collegiate student-athletes display high level of athletic identity and identity foreclosure and low levels of career maturity, possibly due to past and current commitments to sport and athletics (Webb et al., 1998). However, no research appears to exist that examines these same characteristics in individuals currently enrolled in undergraduate athletic-related courses, such as kinesiology and kinesiology-related courses. Therefore, the primary purpose of this study was to explore athletic identity, identity foreclosure, and career maturity in a sample of undergraduate college students currently enrolled in kinesiology-related courses. Based upon previous research, it was hypothesized that individuals with higher levels of sport participation (e.g. varsity, club, select) will have higher levels of athletic identity and identity foreclosure, and lower levels of career maturity.

### Method

#### Participants

Male and female students currently enrolled in undergraduate kinesiology-related courses, such as physical education and kinesiology classes were recruited. In particular, this study surveyed individuals who more recently completed high school, ages 18-25. This study also primarily focused on those individuals with previous sport experience during high school.

## Procedure

Participants were contacted through their kinesiology and physical education classes and asked to complete an online Qualtrics survey. Students were provided with a link to the questionnaire, which took around fifteen minutes to complete, in class or through an email announcement. Upon opening the survey, participants were provided with an informed consent form explaining that participation is completely voluntary and anonymous and that responses will be kept confidential, after which the option to complete the questionnaire was provided. By completing the survey, participants had the option of entering an email address for a chance to win a \$25 gift card. Instructors of physical education classes were asked to inform their class about the survey, and a follow-up email was sent a week later. The researcher also visited kinesiology-related classes to ask the students to complete the survey, and followed up with a second visit or reminder to the class the following week. The survey was pilot tested with a smaller group ( $n = 10$ ) prior to administering the final version to assess clarity of questions and length of survey.

## Measures

### *Demographics Survey*

Information regarding participants' gender (male or female), age (18-25), ethnicity (White, Black or African American, Hispanic/Latino, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, two or more, or other), and academic year (freshman, sophomore, junior, senior, 5<sup>th</sup> year plus) were collected. Previous sport experience at the high school, club, or select level as well as participants' current major area of study and current grade point average was also collected. Lastly, information regarding the participants' self-reported

level of skill (1 = *very poor*, 2 = *poor*, 3 = *average*, 4 = *good*, 5 = *excellent*) in their primary sport was recorded.

### *Athletic Identity*

Athletic identity was assessed using the Athletic Identity Measurement Scale (AIMS; Brewer et al., 1993). The 10-item scale encompasses three subscales: social-identity, exclusivity, and negative affectivity. Responses are scored using a 7-point Likert scale from *strongly disagree* (1) to *strongly agree* (7). Scores for the AIMS range from 10 to 70, with higher scores being indicative of a more salient athletic identity. Support for the reliability of the scale ( $\alpha = .89$ ) has been found (Brewer et al., 1993).

### *Identity Foreclosure*

The Extended Objective Measure of Ego Identity Status (EOM-EIS-2; Bennion & Adams, 1986) was used to measure the extent to which identity foreclosure is present in the sample. The decision to use the EOM-EIS-2 was supported by previous research that used this instrument in a similar study that measured identity foreclosure, athletic identity, and career maturity in high school students enrolled in a physical education class (Adams, 2011). The 16 question instrument is scored using a Likert-type scale ranging from *strongly disagree* (1) to *strongly agree* (6), with higher scores being indicative of a more foreclosed identity. The scale assesses identity foreclosure based on questions related to occupation, politics, and religion in eight content areas. The eight content areas are friendship, dating, sex roles, recreation, occupation, religion, political views, and lifestyle philosophy. The scale has been found to be both a reliable and valid measure of identity foreclosure (Bennion & Adams, 1986). Because of

concerns with the structure of the scale, a pilot test of the identity foreclosure subscale was conducted, and the measure was determined to be reliable ( $n = 40$ ,  $\alpha = .94$ ).

### *Career Maturity*

Career maturity was assessed using the Attitude Scale, Screening Form A-2, of the Career Maturity Inventory (CMI-A2; Crites, 1978). The CMI-A2 consists of 50 items with a total score strongly associating with decidedness, choice satisfaction, and vocational identity achievement. While the revised version of the Attitude Scale includes both Form A-2 and the Competence Form B-1, Form A-2 has been shown to be sufficient for both research and screening purposes (Savickas & Porfeli, 2011). The CMI-A2 assesses feelings, subjective reactions, and dispositions an individual has toward making a career choice and beginning a career (Adams, 2011). The raw score ranges from 0 to 50, and is determined using the answer key provided by Crites (1978), with higher scores representing a greater readiness to make career decisions and more mature career decision-making attitudes. Crites (1978) found that the internal consistency reliabilities ranged from .72 - .90, with a test-retest reliability of .71 over a one-year period. The CMI-A2 has been used in similar studies to measure career maturity in collegiate student-athletes (Murphy et al., 1996; Whipple, 2009) and is generally considered a valid measure of career making attitudes (Savickas, 1990).

### *Data Analysis*

Following the retrieval of the completed questionnaires, the data was entered into the SPSS analytical system to analyze means and standard deviations, as well as variance and reliability of the scales. Correlations between demographic variables, athletic identity, identity

foreclosure, and career maturity were then analyzed to determine if any relationships were present between the variables. Finally, an analysis of variance (ANOVA) was used to compare mean differences based on gender (male and female), major area of study (kinesiology and non-kinesiology), and ethnicity (White and Non-White).

## Results

The survey was offered to 601 students via physical activity and kinesiology courses. Of the students offered the survey, 62.1% (373) opened the survey, and 94.1% ( $n = 351$ ) completed the survey. Six cases were removed because numerical answers were the same throughout the survey, leaving a total of 345 cases. Because this study surveyed only individuals more recently out of high school, 39 cases were excluded to only include those individuals who fell between the ages of 18 and 25. Of the 306 cases remaining, 40.2% ( $n = 123$ ) were male and 59.8% ( $n = 183$ ) were female with a mean age of  $21.47 \pm 1.60$ . The sample mostly consisted of upper level students, with 2.0% being current college freshman, 12.7% sophomores, 34.3% juniors, 44.4% seniors, and 6.5% currently enrolled in their fifth plus year of college. The majority of the students (47.1%) identified as White, while 19.6% identified as Black or African American, 20.6% as Hispanic or Latino, 0.3 % as American Indian or Alaska Native, 4.9% as Asian, 6.9% as two or more, and 0.7% identified as other. Lastly, 59.2% of students were current kinesiology majors, with 40.8% of the sample majoring in 45 different areas outside of kinesiology.

### Previous Sport Experience

Participants were assessed based on their previous sport experience. Number of years playing at the high school varsity level as well as number of years playing on a club or select

sports team were recorded. Of the students who completed the survey, 60.8% played on their high school's varsity team their senior year, with 26.8% ( $n = 82$ ) playing on varsity all four years of high school. Additionally, 28.4% of individuals who competed in club or select sports during high school also played on a club or select team all four years of high school. Lastly, 1.6% ( $n = 5$ ) rated their sport skill level as very poor, 6.2% ( $n = 19$ ) as poor, 24.8% ( $n = 76$ ) as average, 41.5% ( $n = 127$ ) as good, and 25.8% ( $n = 79$ ) rated their sport skill level as excellent.

#### Athletic Identity, Identity Foreclosure, and Career Maturity

The mean score for the overall sample on the Athletic Identity Measurement Scale was  $38.66 \pm 14.45$  on a 10 – 70 scale. Cronbach's Alpha was calculated for the overall scale in order to determine internal consistency, and was found to be  $\alpha = .93$ . According to Nunnally (1978), a score above  $\alpha = .70$  represents an acceptable degree of internal consistency, therefore this scale has been shown to be reliable. The average mean score of identity foreclosure was  $41.25 \pm 13.19$  on a 6 – 96 scale. Cronbach's Alpha was calculated for the overall scale, and found to be  $\alpha = .91$ , showing that the scale is reliable. Finally, the average mean score of career maturity was assessed and found to be  $30.80 \pm 6.00$ . The scale was also found to be reliable, with a Cronbach's Alpha of  $\alpha = .78$ .

Correlation coefficients were computed to examine the relationships between athletic identity, identity foreclosure, and career maturity (see Table 1). Results indicated a weak, yet positive correlation between total athletic identity score and total identity foreclosure score ( $r = .31$ ;  $p < .01$ ), whereas a weak negative correlation existed between total athletic identity and total career maturity score ( $r = -.12$ ;  $p < .05$ ). Results also indicated that total identity foreclosure score negatively correlated with total career maturity score ( $r = -.29$ ;  $p < .01$ ), albeit weak.

Additionally, relationships between gender, age, ethnicity, major area of study, and current academic year in college were examined. There were weak, but significant ( $p < .01$ ) correlations between total athletic identity score and gender ( $r = -.31$ ), age ( $r = .17$ ), and major area of study ( $r = -.33$ ). Similarly, total identity foreclosure score negatively correlated with both gender ( $r = -.15$ ,  $p < .01$ ) and major area of study ( $r = -.12$ ,  $p < .05$ ). Total career maturity score was found to be positively correlated with gender ( $r = .12$ ,  $p < .05$ ). However, despite these being significant, the relationships were weak.

Furthermore, the relationships between years spent in club or select sports, and years spent on the varsity team during high school were examined. Years spent on the high school varsity team significantly correlated ( $p < .01$ ) with years spent on a club or select team ( $r = .41$ ). Total athletic identity score significantly correlated ( $p < .01$ ) with both years on varsity ( $r = .42$ ) and years on a club or select team ( $r = .22$ ). Total identity foreclosure scale also weakly correlated ( $p < .05$ ) with years spent on a high school varsity team ( $r = .13$ ) and years on a club or select team ( $r = .12$ ). Career maturity was not significantly correlated with the amount of years spent on the high school varsity or club or select team.

Lastly, participants were asked to rate their specific sport skill level from very poor (1) to excellent (5). The higher levels of sport skill were positively correlated to athletic identity ( $r = .46$ ,  $p < .01$ ), identity foreclosure ( $r = .18$ ,  $p < .01$ ), and career maturity ( $r = .13$ ,  $p < .05$ ). It is interesting to note that the correlation between sport skill level and career maturity was positive, despite the fact that other sport related variables negatively correlated with career maturity.



Table 1

*Bivariate Correlations between Athletic Identity, Identity Foreclosure, Career Maturity, Years on High School Varsity Team, and Sport Skill Level*

	<b>Athletic Identity</b>	<b>Identity Foreclosure</b>	<b>Career Maturity</b>	<b>Years on HS Varsity</b>	<b>Sport Skill Level</b>
Athletic Identity	-				
Identity Foreclosure	.305**	-			
Career Maturity	-.115*	-.286**	-		
Years on HS Varsity	.420**	.131*	.111	-	
Sport Skill Level	.462**	.179**	.130*	.626**	-

Note. \*\*Correlation is significant at the .01 level (2-tailed). \*Correlation is significant at the .01 level. (2-tailed).

### Gender, Major, and Ethnicity Analysis of Variance

An analysis of variance (ANOVA) was used to examine the differences between males and females in athletic identity, identity foreclosure, and career maturity (see Tables 2 and 3). Males ( $M = 44.11 \pm 13.15$ ) had significantly higher athletic identity scores ( $p < .01$ ) than females ( $M = 35.00 \pm 14.15$ ). Also, males ( $M = 43.72 \pm 13.30$ ) had significantly higher identity foreclosure scores ( $p < .01$ ) than females ( $M = 39.58 \pm 12.89$ ). In addition, females ( $M = 31.36 \pm 5.92$ ) had significantly higher levels of career maturity attitudes ( $p < .05$ ) than their male counterparts ( $M = 29.96 \pm 6.05$ ). While the differences were significant, the small effect sizes (see Table 3) suggest that being female did not lead to a meaningful lower athletic identity or identity foreclosure, or meaningful higher career maturity.

Separating the data into kinesiology and non-kinesiology majors also yielded some interesting findings. An ANOVA indicated that kinesiology majors ( $n = 181$ ;  $M = 42.57 \pm 13.24$ ) had significantly higher athletic identity ( $p < .01$ ) compared to non-kinesiology majors ( $n = 125$ ;  $M = 33.00 \pm 14.29$ ). Likewise, kinesiology majors' identity foreclosure ( $M = 42.57 \pm 13.86$ ) was significantly higher ( $p < .05$ ) than the non-kinesiology majors' identity foreclosure ( $M = 39.34 \pm 11.95$ ), although the small effect sizes suggest there was not a meaningful difference between the two groups. Furthermore, although not significant, kinesiology majors ( $M = 30.52 \pm 6.48$ ) had lower levels of career maturity ( $p < .05$ ) compared to non-kinesiology majors ( $M = 31.19 \pm 5.23$ ).

Lastly, the data was separated by ethnicity, with ethnicity being further grouped into individuals who identified as White and individuals who identified as an ethnicity other than White, or Non-White. An ANOVA indicated a significant difference ( $p < .05$ ) for career maturity, with the individuals who identified as White having higher levels of career maturity ( $M = 31.69 \pm 5.86$ ) compared to individuals that did not identify as White ( $M = 30.00 \pm 6.04$ ). The athletic identity and athletic foreclosure differences that exists were non-significant, which was also shown by the small effect sizes.

Table 2

*Means and Standard Deviations of Athletic Identity, Identity Foreclosure, and Career Maturity*

	<b>Overall (<i>n</i> = 306)</b>		<b>Male (<i>n</i> = 123)</b>		<b>Female (<i>n</i> = 183)</b>		<b>Kinesiology Major (<i>n</i> = 181)</b>		<b>Non- Kinesiology Major (<i>n</i> = 125)</b>		<b>White (<i>n</i> = 144)</b>		<b>Non-White (<i>n</i> = 162)</b>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Athletic Identity	38.66	14.45	44.11	13.15	35.00	14.15	42.57	13.24	33.00	14.29	39.18	14.73	38.20	14.22
Identity Foreclosure	41.25	13.19	43.72	13.30	39.58	12.89	42.57	13.86	39.34	11.95	40.56	13.09	41.86	13.29
Career Maturity	30.80	6.00	29.96	6.05	31.36	5.92	30.52	6.48	31.19	5.23	31.69	5.86	30.00	6.04

Table 3

*Significance of Athletic Identity, Identity Foreclosure, and Career Maturity*

Gender Difference				Major Differences			Ethnicity Differences		
	<i>F</i>	<i>p</i> -value	Effect Size	<i>F</i>	<i>p</i> -value	Effect Size	<i>F</i>	<i>p</i> -value	Effect Size
Athletic Identity	32.166	<.001**	.095	36.222	<.001**	.106	.348	.556	.001
Identity Foreclosure	7.394	.007**	.024	4.493	.035*	.015	.735	.392	.002
Career Maturity	4.045	.045*	.013	.912	.340	.003	6.172	.014*	.020

*Note.* \*\*Correlation is significant at the .01 level (2-tailed). \*Correlation is significant at the .05 level. (2-tailed)

## Discussion

The purpose of this study was to explore the relationship between athletic identity, identity foreclosure, and career maturity in a sample of undergraduate college students currently enrolled in kinesiology-related courses. The results from this study supported the hypothesis that the higher the sport participation during high school, the greater the athletic identity and identity foreclosure, and the lower the career maturity attitude in students. Additionally, this study yielded interesting results about the relationships between athletic identity, identity foreclosure, and career maturity, as well as their relationships with previous sport experience.

The results of the study indicate that gender, age, major area of study, years spent playing at the high school varsity level, and self-reported sport specific skill level were associated with athletic identity. Furthermore, the results revealed that athletic identity positively correlated with identity foreclosure and negatively correlated with career maturity. That is, students with higher levels of athletic identity also had higher levels of identity foreclosure and lower levels of career maturity than those individuals with lower athletic identity, respectively. In addition, a significant negative correlation was found between athletic identity and career maturity, similar to findings from previous investigations in NCAA Division III (Whipple, 2009) and NCAA Division I (Murphy et al., 1996) collegiate athletes.

The relationship between athletic identity and identity foreclosure is similar to what has been found in previous research (Good et al., 1993), suggesting that individuals who see themselves as athletes feel as though exploratory behaviors may take away from their sport success (Good, Brewer, Petitpas, Van Raalte, & Mahar, 1993; Kennedy & Dimick, 1987). High levels of identity foreclosure in individuals with high athletic identity may also be at least partially explained by outside influences (e.g., coaches and sports administration) placing more

emphasis on sports and less emphasis on career and personal exploration. The idea that outside exploration is detrimental to sport dreams may also be supported by the idea that females had lower levels of athletic identity and identity foreclosure compared to males, perhaps suggesting that females are more open to exploratory behaviors because of the predominately male-dominated professional sports domain (Murphy et al., 1996).

Results of this study are consistent with previous research indicating that students with high identity foreclosure also demonstrate lower levels of career maturity. This is consistent with research in both general student populations (Blustein & Phillips, 1990) and in athletic populations (Adams, 2011; Brown et al., 2000; Murphy et al., 1996; Whipple, 2009). The link between high levels of identity foreclosure and low levels of career maturity attitude demonstrate a strong need for career development programs in college, potentially as early as high school.

This study also compared kinesiology majors to non-kinesiology majors in terms of their athletic identities, identity foreclosure, and career maturity attitudes. Results indicated that individuals enrolled as a kinesiology major have higher levels of athletic identity and identity foreclosure and lower levels of career maturity than individuals who are currently not majoring in kinesiology. This may be partially due to the fact that individuals who were previously athletes picked a major that allowed them to be as closely involved in athletics as possible, as individuals who major in kinesiology often have career aspirations in a field that most closely works with athletes (e.g., athletic training, coaching, strength and conditioning, physical therapy). Individuals may have decided to major in kinesiology because it seemed like a natural transition while still being included in the athletic realm, without much exploration of other alternatives, and without exploring other career opportunities that do not relate to athletics or sport. While the differences between kinesiology and non-kinesiology majors' athletic identity

and identity foreclosure scores were significant, the effect sizes were small, indicating that the differences between the two groups may not be meaningful.

Additionally, the results for years spent on a high school varsity team indicated that individuals who spent all four years on their high school's varsity team displayed higher athletic identity and identity foreclosure, and lower career maturity than those who spent three years or less on a varsity team. Similarly, the results indicate that the higher individuals rated their sport specific skill level (from very poor to excellent), the greater their athletic identity and identity foreclosure, and the lower their career maturity. This suggests that individuals who perceive themselves as a particularly skillful athlete, regardless of objective ability, may be at greater risk of identity foreclosure and career development problems than individuals who do not see themselves this way. This could be helpful in targeting certain populations of athletes that will need the most help in career development and outside career and personal exploration.

Gender was taken into account when assessing athletic identity, identity foreclosure, and career maturity. Similar to previous research, males in this study demonstrated a higher athletic identity than females (Adams, 2011; Brewer et al., 1993; Murphy et al., 1996) and a higher level of identity foreclosure than females. Additionally, females were found to have higher levels of maturity within the career maturity attitudes measure, which is similar to previous research in the athlete population (Adams, 2011; Murphy et al., 1996) as well as in the non-athlete population (Neely & Johnson, 1981; Putnam & Hanson, 1972). Lastly, individuals who identified as White were found to have higher levels of athletic identity and career maturity, and lower levels of identity foreclosure than individuals who reported their ethnicity as something other than White (White, Black or African American, Hispanic/Latino, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, two or more, or other) While these findings are interesting

and lend support to what previous research has found, it is important to note that due to the small effect sizes, the differences between the groups' athletic identity, identity foreclosure, and career maturity are not large enough to be meaningful differences.

### Limitations and Strengths

Although these findings offer new information related to identity and career maturity, this study also had some limitations. First, a self-report survey was used, and therefore some of the responses may include bias. This could be most prevalent in questions pertaining to the participants' sport skill levels, as well as questions that asked about participants' views compared to their parents' views, because participants may have responded in socially desirable ways that were not entirely truthful or accurate. Individuals were also given an incentive to complete the survey, and some professors gave additional extra credit to the individuals in their class that completed the survey. Therefore, participants may have responded only to receive these benefits. The survey was also only taken by individuals who chose to participate in the study, and those who chose to complete the survey may have responded differently than those who did not choose to complete it. Finally, the participants were surveyed from one university, and answers may differ when taking into account different geographical areas. Additionally, because the survey was given to similar classes at one university, the sample likely displays more heterogeneity, making it more difficult to interpret the findings.

Despite these limitations, this study had several strengths. While most of the prior research has focused on current collegiate athletes, this study looked at individuals who had previous sport experience at the collegiate level. This study also took into account number of years competed in varsity and club or select sports in high school, which is not something that



has previously been studied. Lastly, this study included participants' self-evaluation of their level of skill in their primary sport, which added an element that has not previously been examined in the research literature.

### Future Directions

Taken together, the current research findings suggest that the higher individuals rate their sport specific skill level, the greater their athletic identity and identity foreclosure, and lower their career maturity, which is similar to what has been found in high school and collegiate athlete populations (see Adams, 2011; Murphy et al., 1996; Whipple, 2009). However, this is a self-reported measure, and may not match up to their actual level of sport skill. Future studies should assess athletic identity, identity foreclosure, and career maturity based on both subjective and objects measures of sport skill level and compare those findings to the findings of the current investigation. Additionally, the findings from this study may be important to consider when designing career development programs for collegiate athletes. An intervention that introduces a career development program may yield beneficial results on the differences between athletic identity, identity foreclosure, and career maturity attitude scores before, during, and after going through a career development program. It may also be important to consider whether student-athletes have already participated in a career development program during high school and compare those individuals to their peers who have not had the same opportunities. Finally, conducting a long-term longitudinal study that assesses high school athletes' athletic identity, identity foreclosure, and career maturity in the years following the completion of individuals' high school or collegiate sport careers could provide insight into how long the salience of athletic identity lasts, or at what point the salience of the athletic identity starts to diminish.

## References

- Adams, J. C. (2011). *Athletic identity and ego identity status as predictors of career maturity among high school students* (Unpublished Doctor of Philosophy Dissertation). Retrieved from <https://uh-ir.tdl.org/uh-ir/bitstream/handle/10657/261/ADAMS-pdf?sequence=2>.
- Bennion, L. D., & Adams, G. R. (1986). A revision of the extended version of the objective measure of ego identity status: An identity instrument for use with late adolescents. *Journal of Adolescent Research, 1*, 183-198.
- Blann, F. (1985). Intercollegiate athletic competition and students' educational and career plans. *Journal of College Student Personnel, 26*, 115-118.
- Blustein, D. L., Devenis, L. E., & Kidney, B. A. (1989). Relationship between the identity formation process and career development. *Journal of Counseling Psychology, 36*, 196-202.
- Blustein, D. L., & Phillips, S. D. (1990). Relation between ego identity statuses and decision-making styles. *Journal of Counseling Psychology, 37*, 160-168.
- Brewer, B. W., Van Raalte, J. L., & Linder, D. E. (1993). Athletic identity: Hercules' muscles or Achilles heel? *International Journal of Sport Psychology, 24*, 237-254.
- Busacca, L. A., & Taber, B. J. (2002). The career maturity inventory-revised: A preliminary psychometric investigation. *Journal of Career Assessment, 10*, 441-455.
- Crites, J. O. (1978). *Career Maturity Inventory administration and use manual*. Monterey, CA: CTB/McGraw Hill.
- Crites, J. O., & Savickas, M. L. (1996). Revision of the career maturity inventory. *Journal of Career Assessment, 4*, 131-138.
- Davis-Hill, S. (2001). *Career maturity and the Black college student-athlete*. Unpublished doctoral dissertation, Ball State University.
- Erikson, E. H. (1959). *Identity and the life cycle: Selected papers*. New York: International Universities Press.
- Erikson, E. H. (1963) *Childhood and society* (2<sup>nd</sup> edition). New York: Norton.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York: Norton.
- Good, A., Brewer, B. W., Petitpas, A., Van Raalte, J., & Mahar, M. (1993). Identity foreclosure, athletic identity, and college sport participation. *Academic Athletic Journal, 1*, 1-12.
- Harrison Jr., L., Sailes, G., Rotich, W. K., & Blimper Jr., A. Y. (2011). Living the dream or awakening from a nightmare: Race and athletic identity. *Race Ethnicity and Education, 14*, 91-103.

- Kennedy, S. R., & Dimick, K. M. (1987). Career maturity and professional sports expectations of college football and basketball players. *Journal of College Student Personnel*, 28, 293-297.
- Kirk, W. D., & Kirk, S. V. (1993). *Student athletes: Shattering the myths and sharing the realities*. Alexandria, VA: American Counseling Association.
- Lavallee, D., Gordon, S., & Grove, J. R. (1997). Retirement from sport and the loss of athletic identity. *Journal of Personal and Interpersonal Loss*, 2, 129-148.
- Linnemeyer, R. M., & Brown, C. (2010). Career maturity and foreclosure in student athletes, fine arts students, and general college students. *Journal of Career Development*, 37, 616-634.
- Mason, K. A., & Briggs, L. T. (2017). Conversations on choice: Advising undergraduate majors who may demonstrate identity foreclosure. *Transformative Dialogues: Teaching & Learning Journal*, 10, 1-9.
- Marcia, J. E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology*, 3, 551-558.
- Marcia, J. E., Waterman, A. S., Matteson, D. R., Archer, S. L., & Orlofsky, J. L. (1993). *Ego identity: A handbook for psychosocial research*. New York: Springer-Verlag
- Martens, M., & Cox, R. (2000). Career development in college varsity athletes. *Journal of College Student Development*, 41, 172-180.
- Murphy, G. M., Petitpas, A. J., & Brewer, B. W. (1996). Identity foreclosure, athletic identity, and career maturity in intercollegiate athletics. *The Sport Psychologist*, 10, 239-246.
- NCAA. (2017). Probability of competing beyond high school. Retrieved from <http://www.ncaa.org/about/resources/research/probability-competing-beyond-high-school>
- Neely, M. A., & Johnson, C. W. (1981). The relationship of performance on six scales of the Career Development Inventory to sex, father's education, and father's occupation. *Educational and Psychological Measurement*, 41, 917-921.
- Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Putnam, B. A., & Hansen, J. C. (1972). Relationship of self-concept and feminine role concepts to vocational maturity in young women. *Journal of Counseling Psychology*, 19, 436-440.
- Savickas, M. L. (1990). The use of career choice measures in counseling practice. In E. Watkins & V. Campbell (Eds.), *Testing in counseling practice* (pp. 373- 417). Hillsdale, NJ: Erlbaum.
- Savickas, M. L., & Porfeli, E. J. (2011). Revision of the career maturity inventory: The adaptability form. *Journal of Career Assessment*, 19, 355-374.

- Sowa, C. J., & Gressard, C. F. (1983). Athletic participation: Its relationship to student development. *Journal of College Student Personnel*, 24, 236-239.
- Super, D. E. (1957). *The psychology of careers*. New York: Harper & Row.
- Super, D. E. (1975). Vocational maturity in mid-career. *Vocational Guidance Quarterly*, 25, 294-302.
- Webb, W. M., Nasco, S. A., Riley, S., & Headrick, B. (1998). Athlete identity and reactions to retirement from sports. *Journal of Sport Behavior*, 21, 338-362.
- Whipple, K. R. (2009). *Athletic identity, identity foreclosure, and career maturity: An investigation of intercollegiate athletes* (Master's Thesis). Retrieved from <http://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=3216&context=etd>.